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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,975	04/13/2006	Anders Lunden	1026-0005WOUS	7027
49698 7590 10/19/2007 MICHAUD-DUFFY GROUP LLP 306 INDUSTRIAL PARK ROAD SUITE 206 MIDDLETOWN, CT 06457			EXAMINER PALABRICA, RICARDO J	
			ART UNIT 3663	PAPER NUMBER
			MAIL DATE 10/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/575,975

Applicant(s)

LUNDEN, ANDERS

Examiner

Rick Palabrica

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's 9/10/07 Amendment, which directly amended claims 16, 19, and 21, and traversed the rejection of claims in the 5/8/07 Office action, is acknowledged.

Applicant's arguments with respect to the rejected claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 16 recites the limitation, "said cover element forming an external end surface of said control rod blade in a mounted state and sealing at least a part of said recess." Underlining provided. The underlined limitation admits to an embodiment wherein the cover element covers ONLY a part of the recess and leaving the remaining

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part of the recess unsealed, after this cover has been mounted and partly sealed. The new matter pertains to said embodiment that does not have support in the as-filed application. Note, for example, in Fig. 4, that the entire recess (and not only part of it) is sealed when the cover is welded to the upright legs of the recess (see also paragraph 0032 of the specification).

3. Claims 16-29 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a mounted cover element that seals the entire recess, does not reasonably provide enablement for said element sealing only a part of the recess and leaving unsealed the remaining part. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make/use the invention commensurate in scope with these claims. See also section 2 above.

4. Claims 16-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no support for the embodiment wherein the cover element seals only a part of the recess and leaving unsealed the remaining part. See section 2 above.

5. Claims 16-29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are vague, indefinite and incomplete, and their metes and bounds cannot be determined because the claims are inconsistent with the specification with regard to the matter of sealing the recess by the mounted cover element. See section 2 above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16-19, 21-25, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (U.S. 5,276,718).

Ueda et al. disclose a control blade for a boiling water reactor (e.g. see Figs. 34-36 and col. 2, lines 1+).

As to claim 16, applicant's claim language reads on Ueda et al. as follows: a) "plurality of channels" reads on holes 4a (see Fig. 34); b) "free edge portion with a recess" reads on edges 2d, 2d with a recess between them (see Fig. 35); c) "cover element " reads on element 5 (see Figs. 35 and 36); d) "profile element" reads on the combination of 3a and 3b, 4 and 3b (see Figs 34 and 35). The claims do not preclude such combination of elements in Ueda et al.

Note that cover element 5 seals the recess , and the profile element is disposed against a bottom surface in the recess and covers the outlets 2c of the channels..

As to claim 17, the width of either part 3a or 4 of the profile element corresponds substantially to the width of the bottom surface of the recess.

As to claim 18, either part 3a or 4 of the profile element has a substantially plane surface that is applied against a corresponding plane bottom surface.

As to claim 19, part 3b of profile element has an extension upwards from a substantially plane surface. See Figs. 35 and 36 showing the curved sides of the ends of 3b disposed against the corresponding curved sides of element 5. Applicant has not defined the term, "substantially plane surface", and absent such definition, the examiner interprets the term broadly and reads it on the surface of 3b from which said curve ends project.

As to claims 21 and 22, Ueda et al.'s profile element has a continuous extension along the whole length of the recess and is made of metal (see col. 2, lines 20+).

As to claims 23 and 24, the cover element 5 has a surface that abuts the profile element 3a and 3b, 4 and 3b, and these contact surfaces are substantially plane. See above discussion on applicant's non-definition of "substantially plane surface."

As to claim 25, applicant's claim language reads on Ueda et al. as follows: a) "cover portion" reads on 3b; and b) "support portion" reads on 3, 4. Note that the support portion inherently has a width less than the width of the recess because otherwise the support portion cannot be inserted into the recess.

As to claims 28 and 29, the recited absorber materials are part of an intended or desired use of the apparatus. Note that claim 16, from which claims 28 and 29 depend, recites the absorber material as part of the intended use clause "to receive an absorber material". Statements of intended or desired use, as well as method limitations, do not serve to patentably distinguish the claimed structure over that of the reference, as long as the structure of the cited references is capable of performing the intended use. See MPEP 2111-2115.

See also MPEP 2114 that states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531.

[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

The system in the cited reference is capable of being used in the same manner and for the intended or desired use as the claimed invention. Note that it is sufficient to show that said capability exists, which is the case for the cited reference. Ueda et al. is capable of receiving an absorber material, including the materials recited in claims 28 and 29, because of the configuration of having a recess at the free edge portion (e.g., see Fig. 35).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al.

As to claim 20, the thickness of the profile element is dependent upon the dimensions of the specific control blade, including the available space where this element is to be disposed. Alternatively, said thickness is a matter of optimization within prior art conditions or through routine experimentation (see MPEP 2144.05 II.A). For example, while a thicker element is more structurally rigid than a thinner one, it would make the cost of manufacturing the blade more costly.

As to claim 27, again the limitation, "to be attached at the edge ...", is a statement of desired or intended use that Ueda et al. is capable of meeting. See discussion in section 6 above.

Alternatively, claim 27 is a product by process claim. The product is a blade with the cover element attached to the edge portion of the blade, and the process is the manner of achieving the attachment, i.e., by a welding process. Note MPEP 2113, which states:

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of

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the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966.

Based on the above, Ueda et al. meets the limitation.

8. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. in view of Research Disclosure 33925/92 (hereinafter referred to as RD '92) in view of Ueda et al. Ueda et al. disclose the applicant's claim limitations except for the groove in the recess.

RD '92 teaches a control blade of cruciform cross section that is typical of a boiling water reactor (e.g. see figure). The reference teaches that it is old and advantageous to have grooves 8, 9 in the recess (see Fig. and page 537).

Both primary and secondary references are in the same field of endeavor.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by Ueda et al., by the teaching of RD '92, to include groove in the recess, e.g., between the bottom of part 3b of the profile element and inner wall 2b, to gain the advantages thereof (i.e., favorable pressure absorbing properties as per RD '92), because such modification is no more than the use of a well known expedient within the nuclear art. This groove forms a passage that extends between adjacent channels under the profile element, as in the claim.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 571-272-6880. The examiner can normally be reached on 6:00-4:30, Mon-Thurs.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RJP

October 17, 2007

  
RICARDO J. PALABRICA  
PRIMARY EXAMINER